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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/601,185	06/20/2003	Shinichi Kurita	007390 DISPLAY/AKT	6777
41161	7590	03/15/2006	EXAMINER	
DUGAN & DUGAN, PC 55 SOUTH BROADWAY TARRYTOWN, NY 10591			MCDONALD, RODNEY GLENN	
			ART UNIT	PAPER NUMBER
			1753	
DATE MAILED: 03/15/2006				

Please find below and/or attached an Office communication concerning this application or proceeding.

*Supplemental*  
**Notice of Allowability**

Application No.

10/601,185

Examiner

Rodney G. McDonald

Applicant(s)

KURITA ET AL.

Art Unit

1753

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Interview of March 13, 2006.
2. ☒ The allowed claim(s) is/are 1-25 and 27-31.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All b) ☐ Some\* c) ☐ None of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
  - \* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
  - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413), Paper No./Mail Date 3-13-06.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_.

*Rodney G. McDonald*  
RODNEY G. MCDONALD  
PRIMARY EXAMINER

### **EXAMINER'S AMENDMENT**

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Brian Dugan on March 13, 2006.

The application has been amended as follows:

Claim 1, lines 3 and 4, change the phrase "adapted to couple" to "coupled".

Claim 1, line 5, change the phrase "to house" to "housing".

Claim 1, line 6, change "adapted to transport" to "that transports".

Claim 1, line 9, change "adapted to couple" to "that couples".

Claim 1, line 9, change "to seal" to "seals".

Claim 1, line 11, change "adapted to couple" to "that couples".

Claim 1, lines 11 and 12, change "to seal" to "seals".

Claim 12, lines 4 and 5, change "adapted to couple" to "coupled".

Claim 12, line 6, change "to house" to "housing".

Claim 12, line 7, change "adapted to transport" to "that transports".

Claim 12, line 10, change "adapted to couple" to "that couples".

Claim 12, line 10, change "to seal" to "seals".

Claim 12, line 12, change "adapted to couple" to "that couples".

Claim 12, line 13, change "to seal" to "seals".

Claim 12 delete lines 18-21 which begin with "at least one processing chamber..." and ends with "the main body of the transfer chamber;" but leave the word "and" on line 21.

Claim 12, line 24, change "adapted to transport" to "transports".

Claim 23, line 2, change "adapted to couple" to "coupled to".

Claim 23, line 3, insert "and" before "to".

Claim 23, line 10, change "adapted to have" to "has".

Claim 23, line 13, change "adapted to transfer" to "that transfers".

Claim 25, lines 3 and 4, change "adapted to couple" to "coupled".

Claim 25, line 5, change "to house" to "houses".

Claim 25, line 6, change "adapted to transport" to "that transports".

Claim 25, line 9, change "adapted to couple" to "that couples".

Claim 25, line 9, change "to seal" to "seals".

Claim 25, line 11, change "adapted to couple" to "that couples".

Claim 25, lines 11 and 12, change "to seal" to "seals".

Claim 25, line 16, change "adapted to accommodate" to "that accommodates".

Claim 29, line 2, change "adapted to couple" to "coupled to".

Claim 29, line 3, insert "and" before "to".

Claim 29, line 9, change "adapted to accommodate" to "that accommodates".

Claim 30, lines 4 and 5, change "adapted to couple" to "coupled".

Claim 30, line 6, change "to house" to "housing".

Claim 30, line 7, change "adapted to transport" to "that transports".

Claim 30, line 10, change "adapted to couple" to "that couples"

Claim 30, line 10, change "to seal" to "seals".

Claim 30, line 12, change "adapted to couple" to "that couples".

Claim 30, lines 12 and 13, change "to seal" to "seals".

The following is an examiner's statement of reasons for allowance:

Claims 1-11 are allowable over the prior art of record because the prior art of record does not teach the claimed subject matter including a vacuum processing system comprising a transfer chamber comprising a main body having sidewalls coupled to at least one processing chamber and at least one load lock chamber and housing at least a portion of a robot that transports a substrate between the at least one processing chamber and the at least one load lock chamber; a lid that couples to and seals a top portion of the main body of the transfer chamber and the transfer chamber further including a domed bottom coupled to and sealing a bottom portion of the main body of the transfer chamber having a domed region having a radius of curvature greater than a radius of the main body.

Claims 12-22 are allowable over the prior art of record because the prior art of record does not teach the claimed subject matter including a vacuum processing system comprising a transfer chamber comprising a main body having sidewalls coupled to at least one processing chamber and at least one load lock chamber; a lid that couples to and seals a top portion of the main body of the transfer chamber and the transfer chamber further including a domed bottom coupled to and sealing a bottom

portion of the main body of the transfer chamber having a domed region having a radius of curvature greater than a radius of the main body.

Claims 23 and 24 are allowable over the prior art of record because the prior art of record does not teach a method of forming a domed bottom for a transfer chamber coupled to at least one load lock chamber and to at least one processing chamber including wherein the domed bottom is formed to have a domed region with a radius of curvature greater than a radius of the main body and an aperture having a diameter sized to accommodate at least a portion of a robot that transfers substrates between at least one load lock chamber and at least processing chamber coupled to the transfer chamber.

Claims 25, 27 and 28 are allowable over the prior art of record because the prior art of record does not teach a transfer chamber comprising a main body having sidewalls coupled to at least one processing chamber and at least one load lock chamber and housing at least a portion of a robot that transports a substrate between the at least one processing chamber and the at least one load lock chamber; a lid that couples to and seals a top portion of the main body of the transfer chamber and a domed bottom that includes a cylindrical region having a height that accommodates at least a portion of an arm of a positioned within the transfer chamber and a domed region having a first radiused portion having a first radius of curvature and a second radiused portion extending between the first radiused portion and the cylindrical region and having a second radius of curvature that is less than the first radius of curvature; wherein the first radius of curvature is greater than a radius of the main body.

Claim 29 is allowable over the prior art of record because the prior art of record does not teach a method of forming a domed bottom for a transfer chamber coupled to at least one load lock chamber and to at least one processing chamber including forming a domed bottom to have a cylindrical region having a height to accommodate at least a portion of an arm of a robot positioned within the transfer chamber and a domed region having a first radiused portion having a first radius of curvature and a second radiused portion extending between the first radiused portion and the cylindrical region having a second radius of curvature that is less than the first radius of curvature; wherein the first radius of curvature is greater than a radius of the main body.

Claims 30 and 31 are allowable over the prior art of record because the prior art of record does not teach a method of transporting substrates including providing a transfer chamber having a main body having sidewalls coupled to at least one processing chamber and at least one load lock chamber and housing at least a portion of a robot that transports a substrate between the at least one processing chamber and the at least one load lock chamber; a lid that couples to and seals a top portion of the main body of the transfer chamber and the transfer chamber further including a domed bottom coupled to and sealing a bottom portion of the main body of the transfer chamber having a domed region having a radius of curvature greater than a radius of the main body.

Bourel et al. (U.S. Pat. 4,790,750) the closest prior art of record does not teach the transfer chamber, a vacuum processing system or method of transporting where the transfer main body has sidewalls coupled to at least one processing chamber and at

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least one load lock chamber with a robot to transport substrates between the at least one processing chamber and the at least one load lock chamber; a lid and where the domed bottom includes a domed region having a radius of curvature greater than a radius of the main body. Bourel do not show the processing chambers coupled to the sidewalls but to the lid of the chamber. Bourel also does not teach forming the domed bottom for a transfer chamber coupled to at least one load lock chamber and to at least one processing chamber. Bourel also does not teach forming the domed bottom to have a domed region with a radius of curvature greater than a radius of the main body and an aperture having a diameter sized to accommodate at least a portion of a robot that transfers substrates between at least one load lock chamber and at least processing chamber coupled to the transfer chamber. In Bourel the domed bottom does not have the aperture for the accommodating the robot. Bourel also does not teach forming the domed bottom to have a cylindrical region having a height to accommodate at least a portion of an arm of a robot positioned within the transfer chamber and a domed region having a first radiused portion having a first radius of curvature and a second radiused portion extending between the first radiused portion and the cylindrical region having a second radius of curvature that is less than the first radius of curvature; wherein the first radius of curvature is greater than a radius of the main body.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably



accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rodney G. McDonald whose telephone number is 571-272-1340. The examiner can normally be reached on M- Th with Every other Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nam X. Nguyen can be reached on 571-272-1342. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Rodney G. McDonald  
Primary Examiner  
Art Unit 1753

RM  
March 13, 2006

<b>Interview Summary</b>	<b>Application No.</b> 10/601,185	<b>Applicant(s)</b> KURITA ET AL.	
	<b>Examiner</b> Rodney G. McDonald	<b>Art Unit</b> 1753	

All participants (applicant, applicant's representative, PTO personnel):

(1) Rodney G. McDonald. (3) \_\_\_\_\_.

(2) Brian Dugan. (4) \_\_\_\_\_.

Date of Interview: 13 March 2006.

Type: a) ☒ Telephonic b) ☐ Video Conference  
c) ☐ Personal [copy given to: 1) ☐ applicant 2) ☐ applicant's representative]

Exhibit shown or demonstration conducted: d) ☐ Yes e) ☐ No.  
If Yes, brief description: \_\_\_\_\_.

Claim(s) discussed: 1,12,23,25,29 and 30.

Identification of prior art discussed: Bourel.

Agreement with respect to the claims f) ☒ was reached. g) ☐ was not reached. h) ☐ N/A.

Substance of Interview including description of the general nature of what was agreed to if an agreement was reached, or any other comments: Discussed Examiner's Amendment to distinguish over Bourel. Applicant's representative agreed to the Examiner's Amendment. The Examiner's Amendment is attached hereto as well as a reasons for allowance. Specifically the "adapted" language was amended. Also several grammatical corrections were made (changing "to house" to "housing" and inserting the word "and" where needed).

(A fuller description, if necessary, and a copy of the amendments which the examiner agreed would render the claims allowable, if available, must be attached. Also, where no copy of the amendments that would render the claims allowable is available, a summary thereof must be attached.)

THE FORMAL WRITTEN REPLY TO THE LAST OFFICE ACTION MUST INCLUDE THE SUBSTANCE OF THE INTERVIEW. (See MPEP Section 713.04). If a reply to the last Office action has already been filed, APPLICANT IS GIVEN A NON-EXTENDABLE PERIOD OF THE LONGER OF ONE MONTH OR THIRTY DAYS FROM THIS INTERVIEW DATE, OR THE MAILING DATE OF THIS INTERVIEW SUMMARY FORM, WHICHEVER IS LATER, TO FILE A STATEMENT OF THE SUBSTANCE OF THE INTERVIEW. See Summary of Record of Interview requirements on reverse side or on attached sheet.

*Rodney G. McDonald*  
RODNEY G. MCDONALD  
PRIMARY EXAMINER

Examiner Note: You must sign this form unless it is an Attachment to a signed Office action.

\_\_\_\_\_  
Examiner's signature, if required